## Message

From: Bussard, David [Bussard.David@epa.gov]

**Sent**: 8/21/2014 9:34:55 PM

To: Jinot, Jennifer [Jinot.Jennifer@epa.gov]; Kenny Crump [KennyCrump@email.com]; Subramaniam, Ravi

[Subramaniam.Ravi@epa.gov]; chaochen25@comcast.net

**Subject:** revised bottom up letter - hopefully final version for concurrence by each of you.

Attachments: Bottom up letter-08-21-2014.docx

Attached is where I think we have ended up. I added in Ravi's point about the "slope", and accepted Kenny's and Jennifer's comments (not sure if Kenny has yet seen Jennifer's).

Here is a "clean" version.

If all are okay with this one, we can send this one in to the journal and then cross our fingers.

So, let me know if his is okay with you. If anyone has significant further changes, we may need a quick conference call so we don't bounce around too much in email. (Of course, if anyone sees a typo or something wrong with the figure, email may serve just fine to correct that.)

David A Bussard

Director, Washington Division National Center for Environmental Assessment ORD, USEPA

From: Jinot, Jennifer

Sent: Wednesday, August 20, 2014 3:31 PM

To: Kenny Crump; Subramaniam, Ravi; Bussard, David; chaochen25@comcast.net

Subject: RE: revised bottom up letter

hi, all. here are my suggestions for the revised draft. most are editorial, but some are substantive. in order to work with a slightly cleaner version, i accepted everything that was not in dispute from the earlier July revisions that everyone had had a chance to look at. so this version contains only suggestions made by folks since the 31 July version. jj

From: Kenny Crump [mailto:KennyCrump@email.com]

**Sent:** Tuesday, August 19, 2014 1:58 PM

To: Subramaniam, Ravi; Bussard, David; Jinot, Jennifer; chaochen25@comcast.net

Subject: RE: revised bottom up letter

Hey Ravi,

Hope you had a pleasant vacation. I have made three small changes in the letter. I deleted "average" in two places. I assume it was inserted to remind us that different people might have different risks, but I thought it detracted from the point being made a bit. I also replaced "zero" with "small" in one case. The paper is OK by me even if these changes are not included (although I think the latter one is probably needed).

Regards,

Kenny

Kenny S. Crump Cell: 318-243-8431 KennyCrump@email.com

Home:

Kenny and Shirley Crump 2220 S. Vienna Ruston, LA 71270 318-255-7058

From: Subramaniam, Ravi [mailto:Subramaniam.Ravi@epa.gov]

**Sent:** Tuesday, August 19, 2014 10:56 AM

**To:** Bussard, David; Jinot, Jennifer; <a href="mailto:chaochen25@comcast.net">chaochen25@comcast.net</a>; Kenny Crump

Subject: revised bottom up letter

Sorry for the delay in responding. Got caught in two significant deadlines after returning from vacation.

I worked off the latest version in the email exchanges, sent by David 8-4 titled ...7-22-14 JJV RS2 DB2 (3) CC, and found that this did not have Kenny's edits incorporated in David's email of 8-1 titled ... JJV RS2 DB2 (3) KSC. Those versions appear to have crossed. So my edits include reinstating those edits from Kenny.

Second, I see Chao did not like the sentence, "They might overcome this underestimation, but from the procedure per se one would not know when that would, or would not, be the case." I see that David has responded to Chao on this matter but it does not appear to have been resolved. I am leaving the sentence as is. However, I note that the word "necessarily" in the previous sentence covers this point: "The authors of the bottom-up approach have not provided a basis to conclude that using the lower confidence limit on CO or other conservative assumptions will necessarily overcome any underestimation by the bottom-up approach of the slope at CO. I am therefore not averse to deleting this sentence, but don't have a problem leaving it in either.

I made a couple of other very minor edits.

I am fine with the revised figure.

I believe Jennifer needs to look at this yet.

Ravi.

Ravi Subramaniam, PhD; Associate, Quantitative Methods Branch, IRIS Division, NCEA-ORD, US EPA (703) 347-8606 (Tu, W, Th); (301) 515-2701 (M, F)